



## Project Proposal

**Mine Discharge Conveyance  
HDPE Pipeline Installation**

**Environmental Restoration, LLC**

**Gold King Mine  
Silverton, CO**

**August 28, 2015**



August 8, 2014

**Environmental Restoration LLC**

**1666 Fabick Drive**

**St. Louis, MO 63026**

**Attn. Jan Rick, Purchasing**

## **Project Proposal**

**6" & 8" HDPE Pipeline Discharge Conveyance System**

**Gold King Mine to Bonita and Gladstone Treatment Ponds**

**Silverton, Colorado**

### **Project Description**

**General:**

Approximately 4,750 lf of HDPE DR11 and DR7 (4710) pipe is to be installed to convey discharge from the Gold King Mine Site (Level 7 Portal) to two separate treatment pond sites, the Red/Bonita site approximately 2,700 lf away and the Gladstone future site approximately 4,200 lf away. More specifically the discharge will be collected in a mastic lined concrete catch basin outside of the Gold King Portal where it will travel past an 8" Gate Valve and through an 8" HDPE DR 11 buried pipeline for 450 lf. The line will then be reduced to a 6" HDPE DR11 above ground pipeline descending down an old power pole trail at an average of 35% grade for 850 lf. Due to the accumulated pressure at this lower elevation the 6" line will be strengthened by using DR7 HDPE pipe for the next 800 lf. At this point (the Laydown Area) an HDPE tee will be installed with 2 ea. 6" downstream Gate Valves. One Gate Valve will control flow to the Red/Bonita treatment ponds and the second Gate Valve will control flow to the future Gladstone treatment ponds. Approximately 650 lf of 6" HDPE DR11 will be installed (mostly above ground) between the 6" valve cluster and the Red/Bonita treatment ponds and approximately 2100 lf of 6" HDPE DR11 will be installed (mostly above ground) between the 6" valve cluster and the future Gladstone treatment ponds. At the collection catch basin a 12" ABS overflow drain line will be installed to return the flow to its current path in the event that the new system is shut off. There is also the potential that this entire collection/distribution system will be duplicated in parallel for a redundant backup system.

APTec will be installing the above mentioned pipeline components in concert with ER crew that will be handling the Heavy Equipment, Trenching, Backfilling type of needs. This will require precise coordination and execution to be successful.

### **System Design**

The system general layout design was provided to APTec in 2 field visits by Environmental Restoration onsite personnel. The design flow rate is 550 gpm median and 1000 gpm peak. There is a need to have flow directional control at the "Laydown Area" so a valve control cluster will be provided to allow directional flow change from the Red/Bonita to the Gladstone and vice versa. This creates a potential pressurization of up to 275 psi (note: the elevation information is from Google Earth and has not been verified by survey) on the lines above and so a section of the

6" HDPE was strengthened to accept these pressures. Additionally section of the line are designed to be buried and a thrust block installed at the tee. Anchor block are required to be installed above and below steeper sections of pipeline to prevent gradual slippage and/or "crawl" from the combination of expansion, contraction & gravity. It is understood that this area is prone to extreme mountainous cold climatic conditions, however due to the existing topography/physical challenged combined with the urgent/emergency timeline the majority of the pipeline has not been designed to be buried sufficiently to prevent the potential of freezing.

We are forced to place the pipeline on the ground or in shallow trenches and thus expose it to the above ground elements. The system will operate in these extreme conditions only while under constant and continuous flows at a moderate rate. If the flow is stopped the system must be drained to prevent freezing.

#### APTEC Provided Materials

- Concrete Catch Basin coated with grate or lid
- All HDPE Pipe, Fittings and Accessories (PE 4710)
- Gate Valves and Accessories
- 12" ADS Overflow Drain Line
- Misc. Above Ground Pipe Stake and Cable Restraints

#### APTEC Provided Services

- Pipeline Layout (in coordination with ER)
- Direct and Inspect Heavy Equipment Work by ER as required
- Communication and Coordination with all Client and Subcontractor Personnel
- Unloading and Stringing HDPE Pipe, Fittings and Accessories
- Fusion Welding of the HDPE
- Installation of the HDPE Pipeline
- Tie-ins and Connections from the inlet to the Termination Points
- Aboveground Pipe Tie-downs and Restraints
- Cleanup and Demobilization

#### Materials & Work by Environmental Restoration or Others

- Final design by ER for the inlet structure at the Gold King adit that correlates with the future bulk head/closure. (this needed ASAP)
- Pipe bedding and riprap materials
- Concrete for anchors and thrust blocks about 4 CY.
- For discussion - Steel pipe for creek crossing sleeve. We think 50-60 LF per run.
- Help positioning and holding back our winches with your heavy equipment.
- Clear access along the pipeline route for pipe fusion welding and installation
- Excavate, bed and backfill as required (some areas include)
  - Fill at Rd 55 adjacent to the "blowout", to get pipe truck and trailer through
  - 48 Inch inlet structure at mine adit 6-8 feet deep.
  - 12 inch over flow ADS pipe 20 feet long to the east.
  - Grading riprap channel (or pipe?) 20 feet from adit to Catch Basin. (Design by ER)
  - Fill in erosion ravine at GK switch back and location of 8 inch to 6 inch transition
  - 450 LF of trench for 8 inch HDPE pipe at road to Gold King mine.

- Trench and backfill 150 LF at avalanche path and light clearing +/- 500 LF to the bottom.
- Trench and backfill ~ 600 LF E. Fork – Tee – Toward the Avalanche Area & Tee toward Bonita.
- Trench and backfill 250 LF across road 535 and bench 200 LF along south of road.
- Trench and backfill 200 LF across roads at Bonita Ponds for the spur run.
- Provide grading for fusion stations, 25 feet wide and 80 feet long at a max. slope of 7%.
- Shape hole for anchor block at 8 inch to 6 inch reducer.
- Storm water management as required
- All necessary sanitary facilities

## Earthwork

1. All excavations for access to the pipeline flange locations will be provided by the client and will be adequate to enable installation of the HDPE pipeline. The dimension of each excavation may vary depending on terrain and pipe diameter. All excavations must be maintained to proper safety standards, including all necessary site specific de-watering and shoring.

## HSE Coordination

APTEC places Safety as our number one priority. We pride ourselves in having a comprehensive Health, Safety and Environmental program. Our clients depend upon us to provide a well trained staff that not only takes pride in our work, but also recognizes the risks associated with our jobs. Prior to starting any work on site APTec will comply with all required client HSE programs and become oriented with the site specific conditions. In addition, all APTec personnel will:

- Attend Environmental Restoration' Site Specific Safety Training
- Have current safety training certification

## Schedule

1. The project will be scheduled to meet the following durations with unimpeded progress:
  - a. The operational installation of the single HDPE pipeline from the Gold King Mine to the Red/Bonita treatment ponds in 14 days after pipe delivery.
  - b. The operational installation of the redundant HDPE pipeline from the Gold King Mine to the Red/Bonita treatment ponds in 21 days after pipe delivery.
  - c. The operational installation of the single HDPE pipeline from the Gold King Mine to the Gladstone treatment ponds in 23 days after pipe delivery.
  - d. The operational installation of the single HDPE pipeline from the Gold King Mine to the Gladstone treatment ponds in 30 days after pipe delivery.

## Pricing

- \*The pricing outlined below is based on the linear footages Google Earth

Pricing is subject to an increase as:

- a. Additional mobilizations are required for reasons not directly affiliated with APTec scope of services.
- b. Additional equipment and/ or materials are needed based on project changes by client.

- The Pricing for this project is outlined below. Delivery is subject to confirmation at time of contract.



ENVIRONMENTAL RESTORATION, LLC

USEPA REGION 8  
Request for Proposal GK8-77  
Mine Discharge Conveyance  
Due Date August 28, 2015

## Attachment B

## SCHEDULE OF PRICING

RFP# GK8-77PIPE		Gold King Mine		
ITEM	DESCRIPTION	EST. VOLUME	\$ PER UNIT	TOTAL
1.0	Mobilization	Lump Sum	\$	\$ 24,000.00
2.0	Install line from Gold King to "Laydown Area"	2100lf	\$	\$ 84,200.00
3.0	Redundant line to 2.0	2100lf	\$	\$ 78,000.00
4.0	Install line from Laydown Area" to Red and Bonita	600lf	\$	\$ 22,300.00
5.0	Redundant line to 4.0	600lf	\$	\$ 20,100.00
6.0	Install line from "Laydown Area" to Gladstone	2750lf	\$	\$ 56,000.00
7.0	Redundant line to 6.0	2750lf	\$	\$ 44,000.00
8.0	Demobilization	Lump Sum	\$	\$ 14,000.00
9.0	Bond Costs	Lump Sum	\$	\$ 5,200.00
10.0	Total Cost (Items 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10)		\$	\$ 347,800.00

Note: All charges, including up to five required onsite meetings for both superintendent and senior engineer, anticipated to be part of completion of the scope of work, should be included in the above bid. These charges include such items as all applicable taxes, license fees, handling fees, etc.

Unbalanced bids, as determined through comparing bids to distribution of historic costs using the same technology, will either be returned for clarification or removed from consideration, at the sole discretion of ER.

Company Name: Allied Pipeline Technologies	Date: 8/28/15
Project / Technical Contact: Eric Anderson	Phone: (970) 403-8998
EPA ID #:	

Please refer to RFP# **GK8-77PIPE** regarding correspondence to your quotation. Any questions please contact the representatives below. Bid Due date defined within RFP.

Submit Proposals to: Environmental Restoration LLC  
1666 Fabick Drive  
St. Louis, MO 63026  
Attention: Jan Rick, Purchasing

636.680.2416 Phone  
636.680.2466 Fax  
E-mail to [rfp@erllc.com](mailto:rfp@erllc.com)



ENVIRONMENTAL RESTORATION, LLC

USEPA REGION 8  
Request for Proposal GK8-77  
Mine Discharge Conveyance  
Due Date August 28, 2015

Attachment A  
GOLD KING MINE DISCHARGE CONVEYANCE  
AND  
PROPOSAL ACKNOWLEDGMENT

To:	Environmental Remediation LLC 1666 Fabick Dr. St. Louis, MO 63026	From: Canyon Construction Company DBA Allied Pipeline Technologies (company name) 54 Gerard Street, Durango CO 81303 (street address, city, state and zip) (970) 403-8998 (telephone number)
Site Name:	Gold King Mine Release GK8-77	
Location:	Silverton, Colorado	

The Subcontractor proposes to provide all equipment, labor, materials, and equipment necessary for the scope of work provided above and per Request for Proposal GK8-77PIPE and all attached drawings and specifications relative to the terms and conditions provided for the consideration of the bid prices provided herein on the pricing schedule.

The Subcontractor agrees they have examined the RFP and the extent of the scope of work, have examined the provided drawings, specifications, attachments, and understood and understands all existing local conditions relative to site access, city codes and permits, hazards, labor, and any other conditions affecting, or which may be effected by, the scope of work.

  
(Signature)

  
(Date)



ENVIRONMENTAL RESTORATION, LLC

USEPA REGION 8  
Request for Proposal GK8-77  
Interim Water Treatment System  
Due Date August 26, 2015

IDENTIFICATION OF SUBCONTRACTORS

	Name of Subcontractor	Intended Service	Percentage	Dollar Value
1.	None			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

## Past Experience



### - Tacoma Flow Line 36" HDPE Bypass Pipeline

#### Description of the Project

Installed ~1800 lf of 36" DR 32.5 HDPE pipe remotely across critical wetlands and ponds as a bypass for an existing 64" carbon steel pipeline section that had failed. This pipeline repair was critical as it supplied water from Cascade Creek to Electra Lake and ultimately the Tacoma Power Plant on the Animas River. Designed and installed reducing riser transitions to connect the bypass the existing 64" line. Installed a midline electro-fusion tap tee, Gate Valve and 6" pipe extension to allow supply obligations for the Purgatory Ski Area snow making system. This work was performed in late Fall with inclement weather at approximately 9,000' elevation. We utilized our winching system to stay out of the wetlands for this installation.

#### Type of Contract

This was a lump sum bid project. Canyon/APTec 100% Self Performed as the Prime Contractor.

Contract Total - \$ 337,756.00

Total Man Hours - 725

100% Complete & Billed

11/1/14 – 12/20/14

0 Accidents

No DBA

#### Client / Contact Information

John Keahay

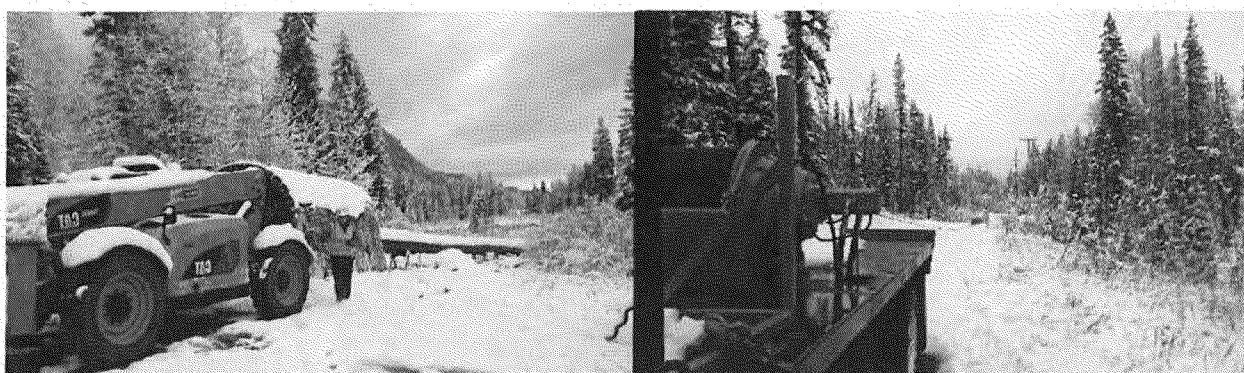
1800 Larimer Street, Suite 400

Xcel Energy

Denver, CO 80202

Principal Engineer

(303) 571-6970

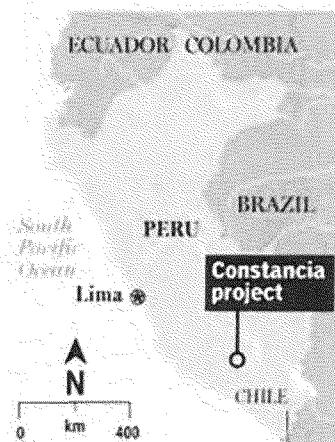


## Past Experience

### HUDBAY - Constancia Tailings Pipeline HDPE Inner Liner, Peru

#### Description of the Project

Installed 18,200 lf of 32" HDPE SureLiner in a new carbon steel tailings pipeline at Hudbay's new \$1.7bn Constancia Project, located at 4,100 m (13,450 ft.) above sea level in the Peruvian Andes. This work was presented challenges due to the harsh environment and high altitude. APTec's experience working at other copper mines in the Andes prepared our workers for these conditions and for the use of specialized high-altitude heavy equipment. The 32" diameter tailings pipeline for this project required a very thick wall HDPE liner to protect the steel pipe from abrasive wear. Specially designed SureLiner pipe and state of the art POWRed equipment was used for this installation.



#### Type of Contract

This was a lump sum bid project. APTec 100% Self Performed as a Sub-contractor.

Contract Total - \$ 2,400,000.00

Total Man Hours – 15,200

100% Complete & Billed

7/1/14 – 9/2/14

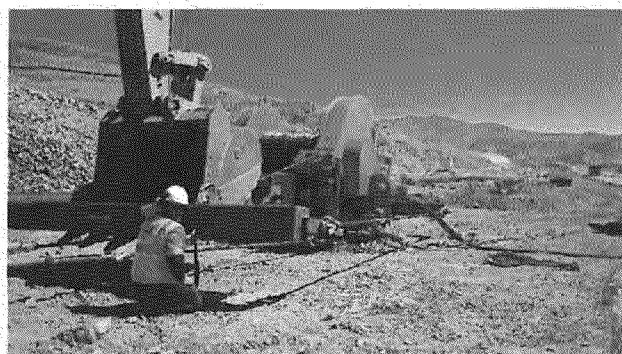
0 Accidents

No DBA

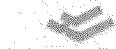
#### Client / Contact Information

Jose Paniaqua  
Serpelbol Peru  
Project Manager

Av. San Borja Norte No. 445  
San Borja, Lima 41, Peru  
(511) 201-6870



## Past Experience



### BARRICK - Pueblo Viejo 32" Tailings Pipeline HDPE Inner Liner, Dominican Rep.

#### Description of the Project

Installed 10,780 lf of 32" HDPE SureLiner in a new carbon steel tailings pipeline at Barrick Gold's newly retrofitted Pueblo Viejo Gold Mine, located in the Dominican Republic, approximately 100 kilometers northwest of the capital city of Santo Domingo. APTec provided a 32" HDPE Sure-Liner system to help protect this above ground pipeline. The tailings pipeline was positioned in a lined trench corridor alongside another pipeline requiring planning and equipment different than a conventional buried steel pipeline.

#### Type of Contract

This was a lump sum bid project. APTec 100% Self Performed as a Sub-contractor.

Contract Total - \$ 1,197,000.00

Total Man Hours – 4302

100% Complete & Billed

8/1/11 – 12/15/11

0 Accidents

No DBA

#### Client / Contact Information

Bish Shama

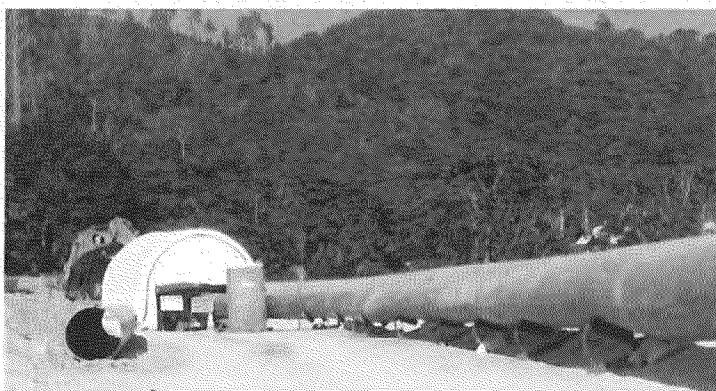
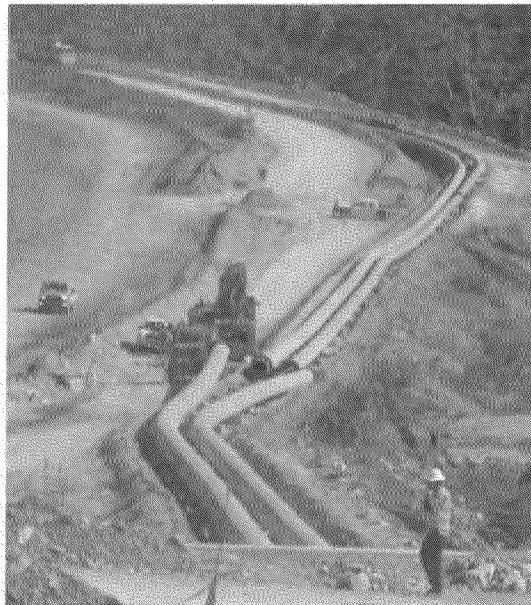
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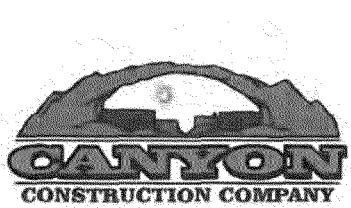
Deputy Project Manager

Calle Heriberto Pieter No. 30

Santo Domingo, DOM

(829) 259-4823





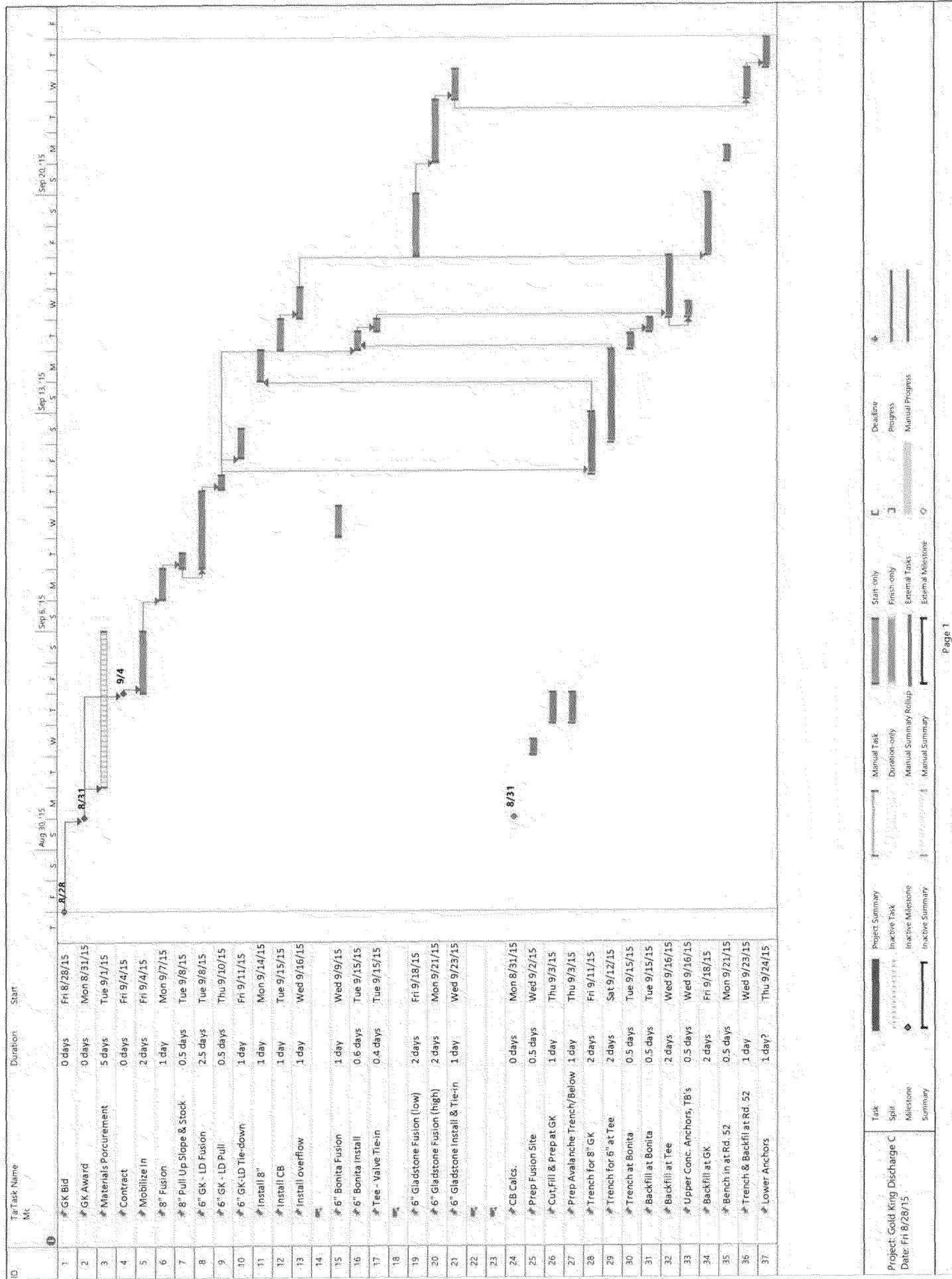
## **Health and Safety Statement for Canyon Construction dba: Allied Pipeline Technologies**

Canyon Construction dba: Allied Pipeline Technologies (APTEc) strives to maintain a safe working environment by ensuring that health and safety of the employees and the public is our top priority. We have maintained a clean safety record for a number of years. Our Experience Modification Rating history is a direct correlation of this effort, as is our current **EMR of .75**. Our previous 3 years of OSHA logs reflect zero recordable incidents, as well, and we have not had any stop-work notices.

This year, we unfortunately experienced our first lost time accident in over 5 years. The employee injured his back while rolling a section of pipe in the pipe rack. The employee missed two days of work for the injury. This accident was investigated and documented by our Safety Manager, John Gage. Within days of the accident we held a company-wide safety meeting to address, train and certify our employees on back safety, as well as proper lifting techniques. We have also established the importance of using proper tools for certain jobs such as a pipe strap for leverage when performing this specific task.

X

John Gage  
Safety Manager



Project: Gold King Discharge C  
Task: Split  
Milestone: Summary

Project: Gold King Discharge C  
Task: Inactive Summary

Project: Gold King Discharge C  
Task: Milestone

Project: Gold King Discharge C  
Task: Manual Progress

Project: Gold King Discharge C  
Task: External Progress

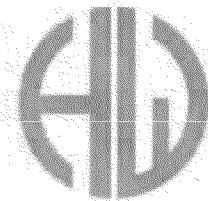
Project: Gold King Discharge C  
Task: Manual Summary

Project: Gold King Discharge C  
Task: Inactive Milestone

# RESPONSE TO REQUEST FOR PROPOSAL

08/28/15

Environmental Restoration, LLC  
RFP #GK8-77PIPE Mine Discharge Conveyance



**HARRISON WESTERN CONSTRUCTION CORPORATION**

1208 Quail Street, Lakewood, Colorado 80215 | 800.638.8793 | T 303.234.0273 | F 303.237.9868  
[www.harrisonwestern.com](http://www.harrisonwestern.com)

## Response to Request for Proposal

Environmental Restoration, LLC  
RFP# GK8-77PIPE Mine Discharge Conveyance

### TABLE OF CONTENTS

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- 2.0 PROJECT EXECUTION PLAN
- 3.0 PAST PROJECTS & SAFETY
- 4.0 ASSUMPTIONS
- 5.0 ATTACHMENTS
  - BID DOCUMENTS
  - PROJECT DESCRIPTION SHEETS



## 1.0 INTRODUCTION

Harrison Western Construction Corporation (HWCC) appreciates the opportunity to submit this proposal to Environmental restoration, LLC (ER) for a Mine Discharge Conveyance. The proposal, scope of work and project execution has been developed based on our recent conversations, previous site visits and correspondence.

### PROJECT UNDERSTANDING

Our understanding of the project is based on our recent discussions, previous proposals and our experience with similar projects. HWCC understands that:

- ER wishes to have a low-maintenance, or maintenance free discharge conveyance system designed & installed.
- ER has listed the following criteria.
  - System must handle between 550 and 1,000 gpm
  - System must be able to withstand extreme climate conditions
  - System must be low-maintenance
  - Water conveyed may contain heavy amounts of suspended & dissolved solids
  - pH of water will be near 3.0
- ER requires project to be completed within 21-days of contract award.
- ER will provide heavy equipment support.
- Contractor would supply all necessary supervision, labor, tools and equipment to perform the required tasks.



## 2.0 PROJECT EXECUTION PLAN

Following is a detailed description of the proposed project execution. HWCC anticipates working a 7-12 shift (7-days/week, 12-hours/day). HWCC intends to utilize 6" and 10" HDPE DR-11 pipe for the conveyance, along with gate valves and wyes.

- Mobilization
  - Mobilize to Site (2-days)
  - Site Setup (2-days)
- Fusing of Pipe Sections (6-days)
  - Fuse pipe for run from Gold King to Laydown Area; including redundant line
  - Fuse pipe for run from Laydown Area to Red & Bonita; including redundant line
  - Fuse pipe for run from Red & Bonita to Gladstone; including redundant line
- Installing of Wyes & Valves (3-days)
  - Install Wye & Valve for Gold King to Laydown Area; including redundant line
  - Install Wye & Valve for Laydown Area to Red & Bonita; including redundant line
  - Install Wye & Valve for Red & Bonita to Gladstone; including redundant line
- Final Positioning and Securing Pipe Runs (3-days)
  - Position pipes in final alignment
  - Secure to ground using mine bolts and pipe clamps

## 3.0 PAST PROJECTS & SAFETY

The following projects represent work of a similar scope and nature.

### Pogo Mine

Installation of belt conveyance structure and underground utilities for Pogo Mine (See attached Project Sheet)

Prime Contractor: HWCC

% of Work Self Performed: 100

Contract Value: \$2.1 Million



Accident Record: 0 LTA

Seven Sisters Avalanche Mitigation

Construction & Installation of new avalanche mitigation cannons for CDOT (See attached Project Sheet)

Prime Contractor: HWCC

% of Work Self Performed: 100

Contract Value: \$900,000

Accident Record: 0 LTA

URAD Decant Line

Abandonment/Closure of 72" decant line for Climax Molybdenum (See attached Project Sheet)

Prime Contractor: Sonfil

% of Contract Work Performed: 75

Contract Value: \$250,000

Accident Record: 0 LTA

Safety

HWCC currently has an EMR rating of 0.83. HWCC has not incurred any LTA's within the last year.



Harrison Western Construction Corporation

## 4.0 ASSUMPTIONS

HWCC has utilized the following assumptions in the development of this proposal:

- ER to provide any additional required site specific training.
- ER to provide heavy equipment & operator(s) to support operations.
- ER to provide safe access to all work areas.
- ER to provide fuel, lube & oil for all HWCC equipment.
- ER to clear & grade proposed pipe alignments.
- ER to assist with final placement of pipe.
- ER to provide sanitary facilities.
- ER to secure any/all permits necessary for work.
- Assumed pipeline route does not require 90-degree, 45-degree or 22.5-degree elbows.
- Assumed pipeline does not require pressure relief/pressure reducing valves or air valves.



## 5.0 ATTACHMENTS



Harrison Western Construction Corporation



ENVIRONMENTAL RESTORATION, LLC

USEPA REGION 8  
Request for Proposal GK8-77  
Mine Discharge Conveyance  
Due Date August 28, 2015

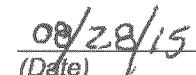
Attachment A  
**GOLD KING MINE DISCHARGE CONVEYANCE  
AND  
PROPOSAL ACKNOWLEDGMENT**

To:	Environmental Remediation LLC 1666 Fabick Dr. St. Louis, MO 63026	From: HARRISON WESTERN CONSTRUCTION (company name) 1208 QUAIL ST. (street address, city, state and zip) LAKEWOOD, CO 80215 (telephone number) 303-234-0273
Site Name:	Gold King Mine Release GK8-77	
Location:	Silverton, Colorado	

The Subcontractor proposes to provide all equipment, labor, materials, and equipment necessary for the scope of work provided above and per Request for Proposal GK8-77PIPE and all attached drawings and specifications relative to the terms and conditions provided for the consideration of the bid prices provided herein on the pricing schedule.

The Subcontractor agrees they have examined the RFP and the extent of the scope of work, have examined the provided drawings, specifications, attachments, and examined and understands all existing local conditions relative to site access, city codes and permits, hazards, labor, and any other conditions affecting, or which may be effected by, the scope of work.

  
(Signature)

  
(Date)



## ENVIRONMENTAL RESTORATION, LLC

USEPA REGION 8  
Request for Proposal GK8-77  
Mine Discharge Conveyance  
Due Date August 28, 2015

## Attachment B

## SCHEDULE OF PRICING

RFP# GK8-77PIPE		Gold King Mine		
ITEM	DESCRIPTION	EST. VOLUME	\$ PER UNIT	TOTAL
1.0	Mobilization	Lump Sum	\$ N/A	\$ 30,000
2.0	Install line from Gold King to "Laydown Area"	2100lf	\$ 17 <sup>00</sup>	\$ 35,700
3.0	Redundant line to 2.0	2100lf	\$ 17 <sup>00</sup>	\$ 35,700
4.0	Install line from Laydown Area" to Red and Bonita	600lf	\$ 18 <sup>00</sup>	\$ 10,800
5.0	Redundant line to 4.0	600lf	\$ 18 <sup>00</sup>	\$ 10,800
6.0	Install line from "Laydown Area" to Gladstone	2750lf	\$ 15 <sup>00</sup>	\$ 41,250
7.0	Redundant line to 6.0	2750lf	\$ 15 <sup>00</sup>	\$ 41,250
8.0	Demobilization	Lump Sum	\$ N/A	\$ 20,000
9.0	Bond Costs	Lump Sum	\$ N/A	\$ 3,000
10.0	Total Cost (Items 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10)			\$ 228,500

Note: All charges, including up to five required onsite meetings for both superintendent and senior engineer, anticipated to be part of completion of the scope of work, should be included in the above bid. These charges include such items as all applicable taxes, license fees, handling fees, etc.

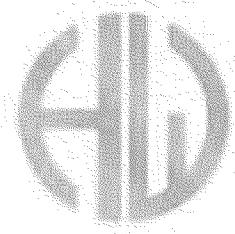
Unbalanced bids, as determined through comparing bids to distribution of historic costs using the same technology, will either be returned for clarification or removed from consideration, at the sole discretion of ER.

Company Name: HARRISON WESTERN CONSTRUCTION	Date: 08/28/15
Project / Technical Contact: DANIEL DUCHE	Phone: 303-234-0273
EPA ID #:	

Please refer to RFP# **GK8-77PIPE** regarding correspondence to your quotation. Any questions please contact the representatives below. Bid Due date defined within RFP.

Submit Proposals to: Environmental Restoration LLC  
1666 Fabick Drive  
St. Louis, MO 63026  
Attention: Jan Rick, Purchasing

636.680.2416 Phone  
636.680.2466 Fax  
E-mail to [rfp@erllc.com](mailto:rfp@erllc.com)



## HARRISON WESTERN CONSTRUCTION

1208 Quail Street  
Lakewood, Colorado 80215  
(800) 638.8793 | T (303) 234.0273  
F (303) 237.9868 | [www.harrisonwestern.com](http://www.harrisonwestern.com)

To:  Address:	Environmental Restoration  Kansas City, MO	Contact:  Phone:  Fax:
Project Name:  Project Location:	Gold King Mine Discharge Conveyance	Bid Number:  Bid Date:

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
1.0	Mobilization	1.00	LS	\$30,000.00	\$30,000.00
2.0	Install Line From Gold King To Laydown Area	2,100.00	LF	\$17.00	\$35,700.00
3.0	Redundant 2.0 Line	2,100.00	LF	\$17.00	\$35,700.00
4.0	Install Line From Laydown Area To Red & Bonita	600.00	LF	\$18.00	\$10,800.00
5.0	Redundant Line 4.0	600.00	LF	\$18.00	\$10,800.00
6.0	Install Line From Red & Bonita To Gladstone	2,750.00	LF	\$15.00	\$41,250.00
7.0	Redundant Line 6.0	2,750.00	LF	\$15.00	\$41,250.00
8.0	Demobilization	1.00	LS	\$20,000.00	\$20,000.00
9.0	Bond	1.00	LS	\$3,000.00	\$3,000.00
Total Price for above Items:					<u>\$228,500.00</u>

**Total Bid Price:** **\$228,500.00**

<b>ACCEPTED:</b>  The above prices, specifications and conditions are satisfactory and are hereby accepted.  <b>Buyer:</b> _____  <b>Signature:</b> _____  <b>Date of Acceptance:</b> _____	<b>CONFIRMED:</b>  <b>Harrison Western Construction Corporation</b>  <b>Authorized Signature:</b> _____  <b>Estimator:</b> Dan Duche' (303) 234-0273 <a href="mailto:dduche@harwest.com">dduche@harwest.com</a>
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ENVIRONMENTAL RESTORATION, LLC

USEPA REGION 8  
Request for Proposal GK8-77  
Interim Water Treatment System  
Due Date August 26, 2015

IDENTIFICATION OF SUBCONTRACTORS

	Name of Subcontractor	Intended Service	Percentage	Dollar Value
1.	N/A			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				



## SEVEN SISTERS AVALANCHE MITIGATION

LOVELAND PASS, COLORADO



CLIENT:

Colorado Department of Transportation

Colorado Department of Transportation (CDOT) contracted with Harrison Western to install a new remote controlled and automated avalanche mitigation system on the Seven Sisters Slide Area near Loveland Ski Area.

The new system consisted of remote controlled propane & oxygen cannons that create a large blast above the avalanche slide area; thereby triggering a controlled avalanche. The project involved installing rock bolts, foundations, piping and structures to house the exploders.

The work had to be completed under a tight time schedule due to weather and other environmental concerns. In addition, all work was completed above 12,000 feet in elevation. Making logistics challenging. Harrison Western utilized helicopters and pack llamas to mobilize equipment and material to the work area



Harrison Western Construction Corporation  
Responsible Natural Resources Development™



**Harrison Western Construction Corporation**  
Responsible Natural Resources Development™



## URAD UPPER DECAN CLOSURE

EMPIRE, COLORADO



Climax Molybdenum, a division of Freeport-MacMoran contracted with Sonfil, who in turn sub-contracted to Harrison Western to backfill & close the existing upper 72" diameter decant line at the former URAD site.

Work included fusing together 4,000 LF of HDPE pipe to be used as the delivery line for the flowable fill that the pipe was to be plugged with. Harrison Western also constructed the form bulkheads to prevent the fill from exiting the decant line.

The work was conducted in a limited access area and also included confined space entries.

### CLIENT:

Climax Molybdenum  
Henderson Mine Operations  
Empire, Colorado

Harrison Western Construction Corporation  
Responsible Natural Resources Development™



## POGO MINE

NEAR DELTA JUNCTION, ALASKA



The Pogo Mine, southeast of Fairbanks, Alaska, is an underground gold mine owned by Teck-POGO Inc. The mine has produced between 350,000 to 450,000 ounces of gold over the last 10 years.

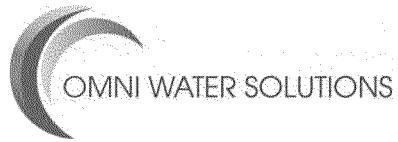
Harrison Western's work consisted of installation of both underground and surface conveyance equipment, heating and ventilating systems, the mine drainage system, and the stope backfill piping network.

### CLIENT:

AMEC  
7376 SW Durham Road  
Portland, OR 97224



**Harrison Western Construction Corporation**  
Responsible Natural Resources Development™



**Proposal Response RFP# GK8-77PIPE**

**Mine Discharge Conveyance**

**Gold King MineCement Creek Mining District, Silverton, Colorado**

**For**

**United States Environmental Protection Agency Region VIII**

**Emergency and Rapid Response Services Contract Task Order # 77**

**AUGUST 28, 2015**

## **Table of Contents**

- 1.0 General Scope of Work**
- 1.1 Site Background**
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- 3.0 Omni Project Approach**
- 4.0 Project Schedule**
- 5.0 Teaming Partners and Subcontractors**
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- 7.0 ER Responsibilities**
- 8.0 Winterization and Winter Months Maintenance**
- 9.0 Contingency Plan**
- 10.0 Pricing**
- 11.0 Reporting & Communication Plan**
- 12.0 Clean Up**
- 13.0 Reference Projects**
- 14.0 Health & Safety**
- 15.0 Insurance**

## **Attachments**

- A: Proposal Acknowledgement**
- B: Schedule of Pricing**
- C: Subcontractor Identification Listing**
- D: Pipeline Location**

## **1.0 General Scope of Work**

The U.S. Environmental Protection Agency (EPA) has tasked Environmental Remediation, LLC (ER) under ERRS Region 8 Contract Number EPS81302, to procure construction of a HDPE pipeline to convey water discharged from the Gold King Mine – 7 Level adit in San Juan County near Silverton, Colorado to the ponds at Red and Bonita and the future site of a water treatment plant in Gladstone, CO.

Omni Water Solutions, Inc. and its equipment provider, Rain for Rent, Inc. are proposing to fulfill all the requirements for RFP GK8-77 Mine Discharge Conveyance, including design, installation, troubleshooting, and operational demonstration of the HDPE pipeline, and demobilization of equipment, personnel, trash, and unused materials after pipeline is installed. Any exceptions are noted in section 6.0, 7.0, 8.0. and 9.0.

### **1.1 Site Background**

The Upper Gold King Mine – 7 Level portal is located at elevation 11,450 feet on the north side of the North Fork Cement Creek, approximately eight miles north of Silverton, Colorado. During an investigation phase the material holding back the mine pool failed and released an estimated 3 million gallons of water. The mine is currently discharging approximately 550gpm of water at a pH between 3 to 3.5.

## **2.0 Project Technical Requirements**

EPA has directed ER to procure installation of an HDPE pipeline to convey mine discharge from the Gold King Mine Site in Colorado. The objective of the pipeline is to convey the discharge to both the ponds at Red and Bonita and a future water treatment plant in Gladstone. The system should have a wye at the bottom of the slope directly beneath Gold King with valves allowing for choice of sending the water to either Red and Bonita or Gladstone. The system must be mobilized and operational within 21 days of award. The system must be able to be operated all year at elevations between 11,400' and 10,500'. Extreme cold and heavy snow are to be expected and planned for. The system must be self-contained as there are no amenities on site. Due to the immediate need for mobilization of the system, redundancy and the ability to address operational contingencies without delay is critical. Another type of conveyance technology may be proposed if the vendor believes it is superior to the above technology. Vendor must provide past full scale experience with similar site characteristics on a minimum of three past projects along with references and contact information. Bidder should be familiar with FAR 52.229 – Buy American Act in securing materials for the project.

Bidder **shall identify type of pipe** proposed and any support required by ER personnel and equipment.

It is possible EPA will choose to design redundancy into the system by installing a separate parallel line of equal size and quality.

### **2.1 Known Parameters of Mine discharge:**

- Flow rates of approximately 550 gallons per minute (gpm) +/- with possible surges to 1000 gpm
- pH near 3
- At times heavy suspended and dissolved solids

- Very cold winter temperatures, currently (August 2015) in the 40-70 Fahrenheit range with winter temps possible below -20F.

### **3.0            Omni Project Approach**

Omni Water Solutions and its equipment provider, Rain for Rent, will provide labor and equipment necessary to deliver, install, remove, and demobilize a temporary HDPE pipeline to convey mine discharge at the RFP stated 550gpm to a maximum of 1,000 gpm to Red Bonita and Gladstone locations. The Omni/Rain for Rent system will begin at (2) customer/owner provided valved POC's to flow inlet structure directed to Red Bonita and Gladstone locations via wye in line equipped with pressure relief valve and locked out valves to convey gravity flow water to an open discharge into the Red Bonita treatment/holding ponds and Gladstone Treatment pad.

Omni's quote includes stainless steel valves, couplings, and fittings as required.

### **4.0            Project Schedule**

Per RFP section 3.0, "The system must be mobilized and operational within 21 days of award."

As long as Omni and its supplier have unimpeded access to the location and reasonable weather conditions, this can be accommodated.

For the quoted items, Omni requires a signed quote not less than 5 days prior to delivery.

Planned Schedule Durations:

Mobilization: 5 Days

Installation: 14 Days

Demobilization: 2 Days

### **5.0            Teaming Partners and Subcontractors**

- Rain for Rent – Pipeline installation and equipment
- Agreement – to be provided

### **6.0            Omni Scope**

- Excludes installation of sump system at Gold King Mine discharge portal
- Omni will provide labor and equipment necessary to perform one(1) unimpeded delivery & return trip per load to site.
- Omni will provide labor and equipment necessary to install, remove, and demobilize a temporary HDPE Pipeline to convey mine discharge at the RFP stated 550 GPM to a maximum of 1,000 GPM to Red Bonita and Gladstone locations.
- Omni's system will begin at (2) customer/owner provided valved POC's to flow inlet structure directed to Red Bonita and Gladstone locations via wye in line equipped with pressure relief valve and locked out valves to convey gravity flow water to an open discharge into the Red

Bonita treatment/holding ponds and Gladstone Treatment pad.

## **7.0 ER Responsibilities**

- Equipment and operator for constructing sump at inlet of Gold King Mine compatible with Omni HDPE pipeline. Structure will allow for gravity feed into HDPE line and/or valves.
- Equipment and Operator to convey Omni - provided HDPE lines up hill to the Gold King Inlet
- All road crossings, trenching, or associated excavation
- Safe and dependable site access including roads and all needed clearing and grubbing
- All costs and coordination efforts with local and federal municipalities, including the EPA and State authorities and permitting
- Site support items such as restrooms, security, trash disposal and shelter
- Disposal or restoration of contaminated equipment
- Rigging and lifting required in areas inaccessible to standard vehicle traffic
- Discharge Permit and water quality monitoring
- All costs and services to provide fuel to RFR/Omni equipment
- Ensure that the application of this system does not damage nearby structures or cause negative impacts to the environment either directly or indirectly
- Protect system from damage and malfunction due to temperature or any substance that will cause corrosion, damage or leakage.
- Customer must provide protection that does not impede system function. Customer is responsible for all damages to system.
- Supply all needed water for any applicable system testing, startup, and cleaning.
- Provide any needed vehicular or pedestrian traffic control, site security and the modification or alteration of any permanent structure or site element including inlet structure, equipment pads and discharge locations.
- Disposal all waste materials on associated with this system
- Customer to operate and monitor system
- Site water infiltration and storm water control
- Final POC's to inlet structure and treatment system

## **8.0 Winterization and Winter Months Maintenance**

- Owner/Customer responsible for all freeze protection. Omni can provide estimate upon request after HDPE pipeline is installed to determine proper design and application.

## **9.0 Contingency Plan**

- Proposed system is designed and built for full redundancy. Should customer/owner decline 100% redundancy, they would not hold Omni responsible for issues arising from a lack thereof.

## **10.0 Schedule of Pricing**

- See Attachment B, Schedule of Pricing
- Services are quoted as time and material

## **11.0 Reporting & Communication Plan**

To ensure that project communication is timely and effective, a stakeholder list will be created and maintained along with a communication matrix identifying the following: communication type, purpose of communication, delivery method, originator, target audience, communication frequency, and the desired outcome of the communication. A combination of meetings and written reports will be used to communicate project status. Written reports, sent via email to reduce waste, will be the primary mechanism for communicating project status. The primary meetings and reports expected are listed below:

- Safety Meeting – Tailgate Meeting: Each day will begin with a Safety/Tailgate meeting to provide a high level discussion of the days planned activities, identify the associated risks involved, outline safe work practices, and provide workers with an opportunity to voice concerns or requests for support needed that day. Included in this meeting will be a discussion on the potential impact of environmental factors on planned activities. It will also serve as an opportunity to coordinate work activity between different groups. A report will not be generated as a result of this meeting. However, items discussed could be used to complete the Daily Work Report. All onsite workers are required to attend this meeting.
- Daily Work Report (Activity Log) – This report will be completed as part of the Daily Progress Meeting and will capture the following information: Summary of daily work activities planned; Summary of daily activities completed; Discussion on actions to take to remedy incomplete work and prevent delays; New open action items; Project Risks/Issues/Setbacks; and finally safety concerns.
- Weekly Work Report – The weekly work report will summary the week's progress and issues into a single document (email). In addition, it will include a high level discussion on overall project schedule, budget, change orders, etc. This report will be provided to the Environmental Restoration Response Manager.

## **12.0            Clean Up**

A well maintained site is key to sustaining a safe work site. In an effort to control waste, sub-contractors to Omni will be encouraged to minimize the amount of packing materials, excess construction materials, etc. brought to the location. Sub-contractors will also be held accountable for removing their construction related wastes. For situations where this approach isn't feasible, Omni will provide roll-off bins for the collection and removal of construction debris and garbage. Site inspections will be conducted daily at the end of the Daily Progress Meeting to identify garbage, construction debris, and unused materials which need to be addressed. Omni will only use approved vendors for hauling and disposing of trash. Bins will be emptied on a scheduled basis or when full.

## **13.0            Reference Projects**

### **13.1            Reference #1**

Company Name: Preferred Sands of Genoa  
Contact Name /Title: Ron Loder-Construction Manager  
Telephone Number: 813-777-2377  
Email: rdlmech@hotmail.com

**Project Description:**

Fused over 25,000 feet of HDPE pipe in sizes ranging from 6" to 30" HDPE pipe and thousands of flange adapters, valves etc. Work started on 1/1/2012 and lasted thru 5/15/12. Two SWAT Project Manager on site and 6-8 trained fusion techs.

**Role of firm (primary contractor, team member or subcontractor)** Primary Contractor

The work self-performed by the firm (dollar value, field man hours, percentage of work). 1mm + in labor revenue, 5400 total man hours, 100% self-performed

The projects current percentage complete, billings to date and performance time period. 100% completed, billing 100%, Jan 1, 2012 – June 15, 2012

Accident record for the project as a whole for work self-performed. 0 recordable

Indicate whether DBA applied. No

## **13.2 Reference # 2**

Company Name: City of Omaha  
Contact Name /Title: Etan Tsabari – Engineering  
Telephone Number: 402-301-8345  
Email: [etsabari@ci.omaha.ne.us](mailto:etsabari@ci.omaha.ne.us)

**Project Description:**

In 2011, Rain for Rent installed a 576 MGD CSO bypass system to manage CSO events due to flooding along the Missouri River in Omaha, NE. The need presented itself when the river started to backflow into CSO structure at the Burt-Izzard pumping station. The City had to close the CSO outfall to the Missouri River to prevent major backups and flooding throughout the downtown area. Within three days of being contacted, Rain for Rent came up with a solution to the CSO problem.

The project consisted of two pump stations. The first pump station included 1-DV600-30" Skid Mounted Trash pump, three ES600-24" Axial Flow Submersible pumps, and three HD600's. This station was in operation within 7 days of our Notice to Proceed. The Second pump station had 4- FP 1050-42" Axial Flow Floating pumps, three DV-600-30" Skid Mounted Trash pumps and one 24" Hydraulic Axial Flow pump. This pump station was installed within 30 days of the notice to proceed. Each pump had a single discharge line stretching over 400'. This pump station remained in operation from June 2011 through end of October 2011. In total, this single project was worth >1.5 million dollars in total revenue. Some of the biggest obstacles we had to overcome was outdated as built drawings from the early 1900's, a railroad track that supplied a major power plant to the north, and a levee system that was within 25 ft of the railroad track. Rain for Rent had to work an aggressive schedule set by USACE and Union Pacific Railroad to bury 4-24" HDPE discharge pipe and 4-42" HDPE discharge pipe that had to be buried under the railroad track within 24 hrs.

**Role of firm (primary contractor, team member or subcontractor)** Team Member

The work self-performed by the firm (dollar value, field man hours, percentage of work). \$1.5 mm in billing, 6500 man hours, 100% completed by Rain for Rent

The projects current percentage complete, billings to date and performance time period. 100% completed, 100% billing completed, June 11, 2011 – Nov 15, 2011

Accident record for the project as a whole for work self-performed. 0 recordable

Indicate whether DBA applied. No

### **13.3 Reference # 3**

Company Name: Gold King Mine/Environmental Restoration

Contact Name /Title: Carla Copeland – Manager Field Cost Accountants or Matt Francis – on site project manager

Telephone Number:

Email:

Project Description:

Treat contaminated water into creeks and rivers. Project includes providing labor to construct HDPE pipe line and providing liquid handling equipment to Contractor and Subcontractors.

Role of firm (primary contractor, team member or subcontractor). Subcontractor

The work self-performed by the firm (dollar value, field man hours, percentage of work). \$1.5 mm in billing, 6500 man hours, 100% completed by Rain for Rent

The projects current percentage complete, billings to date and performance time period. 100% completed, 100% billing completed, June 11, 2011 – Nov 15, 2011

Accident record for the project as a whole for work self-performed. 0 recordable

Indicate whether DBA applied. No

### **13.4 Reference # 4**

Company Name: Edgemark

Contact Name /Title: Jerry Holcomb - Field consultant

Telephone Number: 304-206-5626

Email: [jholcomb@edgemarkllc.com](mailto:jholcomb@edgemarkllc.com)

Project Description:

22000 foot of 12" SDR 11 HDPE. Several pump stations with 400 foot of elevation change. Oil & Gas water transfer.

Role of firm (primary contractor, team member or subcontractor). Primary contractor

The work self-performed by the firm (dollar value, field man hours, percentage of work). \$750,000 in billing, 675 man hours, 100% completed by Rain for Rent

The projects current percentages complete, billings to date and performance time period. 100% complete, 100% billing completed, June 2015 to Nov 2015

Accident record for the project as a whole for work self-performed. 0 recordable

Indicate whether DBA applied. No

## **14.0            Health & Safety**

In the last 365 days, Omni Water Solutions has had 1 lost time incident and has an EMR rating of .93. To date, Omni has not received any stop work notices from customer or operators and employs a strong internal STOP WORK policy. Any employee, at any time, may stop any operation he/she feels creates an unsafe work environment.

## **14.0    Insurance**

Omni and its suppliers will comply with all insurance requirements in the RFP.

**Attachment A****Proposal Acknowledgement**

**Attachment A**  
**GOLD KING MINE DISCHARGE CONVEYANCE**  
**AND**  
**PROPOSAL ACKNOWLEDGMENT**

<b>To:</b>	Environmental Remediation LLC 1666 Fabick Dr. St. Louis, MO 63026	<b>From:</b>	Omni Water Solutions, Inc. 4120 Commercial Center Drive, Suite 100 Austin, Texas 78744 512-275-0804
Site Name:	Gold King Mine Release GK8-77		
Location:	Silverton , Colorado		

The Subcontractor proposes to provide all equipment, labor, materials, and equipment necessary for the scope of work provided above and per Request for Proposal **GK8-77PIPE** and all attached drawings and specifications relative to the terms and conditions provided for the consideration of the bid prices provided herein on the pricing schedule.

The Subcontractor agrees they have examined the RFP and the extent of the scope of work, have examined the provided drawings, specifications, attachments, and examined and understands all existing local conditions relative to site access, city codes and permits, hazards, labor, and any other conditions affecting, or which may be effected by, the scope of work.

---

(Signature)

---

(Date)

**Attachment B****Schedule of Pricing**

SCHEDULE OF PRICING				
RFP# GK8-77PIPE		Gold KingMine		
ITEM	DESCRIPTION	EST. VOLUME	\$ PER UNIT	TOTAL
1.0	Mobilization	Lump Sum	\$	\$ 23,245.80
2.0	Install line from Gold King to "Laydown Area"	2,250lf	\$ 18.03	\$ 40,558.30
3.0	Redundant line to 2.0	2,250lf	\$ 15.95	\$ 35,894.30
4.0	Install line from Laydown Area" to Red and Bonita	700lf	\$ 13.91	\$ 9,739.85
5.0	Redundant line to 4.0	700lf	\$ 13.91	\$ 9,739.85
6.0	Install line from "Laydown Area" to Gladstone	2,750lf	\$ 10.47	\$ 28,801.82
7.0	Redundant line to 6.0	2,750lf	\$ 10.47	\$ 28,801.82
8.0	Demobilization	Lump Sum	\$	\$ 5,300.00
9.0	Bond Costs	Lump Sum	\$	\$ tbd
10.0	Total Cost (Items 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10)			\$ 182,081.74

*Note: All charges, including up to five required onsite meetings for both superintendent and senior engineer, anticipated to be part of completion of the scope of work, should be included in the above bid. These charges include such items as all applicable taxes, license fees, handling fees, etc.*

*Unbalanced bids, as determined through comparing bids to distribution of historic costs using the same technology, will either be returned for clarification or removed from consideration, at the sole discretion of ER.*

Company Name: Omni Water Solutions, Inc.	Date: 28 August, 2015
Project / Technical Contact: Joe Ramos (Rain for Rent)	Phone: 970-529-0117
EPA ID #:	

**Omni Water Solutions - Treating Water with Respect™**

4120 Commercial Center Drive | Austin, Texas 78744 | 512-275-0804 office| 512-386-5163 fax  
[www.omniwatersolutions.com](http://www.omniwatersolutions.com)

**IDENTIFICATION OF SUBCONTRACTORS**

	<i>Name of Subcontractor</i>	<i>Intended Service</i>	<i>Percentage</i>	<i>Dollar Value</i>
1.	Rain for Rent	Design, Materials, & Installation	94%	\$172,000
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

**Omni Water Solutions - Treating Water with Respect™**4120 Commercial Center Drive | Austin, Texas 78744 | 512-275-0804 office| 512-386-5163 fax  
www.omniwatersolutions.com

**Attachment D:****Pipeline Location**

**Omni Water Solutions - Treating Water with Respect™**

4120 Commercial Center Drive | Austin, Texas 78744 | 512-275-0804 office| 512-386-5163 fax  
www.omniwatersolutions.com